

.IN THE CLAIMS:

Please rewrite claims 1, 8 and 9, cancel claim 2 without prejudice or disclaimer and add new claim 19, all as follows:

1. (currently amended) A method for forming an elongated fused quartz article comprising:

feeding a generally SiO₂ material into a furnace melting zone comprising a refractory material wall with a protective lining selected from rhenium, osmium, iridium, platinum and mixtures thereof;

fusing said SiO₂ material in [a] the melting zone of said furnace under a gas atmosphere comprising at least one carrier gas and an oxidizing gas; and

drawing the fused SiO₂ material from the furnace to form said article.

2. (canceled)

3. The method of claim 1 wherein said carrier gas is hydrogen or a noble gas.

4. The method of claim 1 wherein said oxidizing gas is water vapor.

5. The method of claim 1 being a continuous process.

6. The method of claim 1 wherein said article is a tube.

7. The method of claim 1 wherein said article is a rod.

8. (currently amended) The method of claim [2] 1, wherein said refractory material is comprised of tungsten, molybdenum or mixtures thereof.

9. (currently amended) The method of claim [2] 1, wherein said protective lining material comprises rhenium.

10. A furnace for melting silica for fusion into a desired shape, said furnace comprising a body having a melting zone and a drawing zone, said melting zone including a gas feed inlet for introducing an oxidizing gas.

A 11. The furnace of claim 10 wherein said melting zone comprises walls of a refractory material including an inner barrier.

12. The furnace of claim 11 wherein said barrier layer comprises rhenium, osmium, iridium and mixtures thereof.

13. The furnace of claim 12 wherein said refractory material comprises tungsten, molybdenum or mixtures thereof.

14. The furnace of claim 11 wherein said barrier layer provides a sealed chamber within said refractory material walls, said gas feed inlet opening into said sealed chamber.

15. The furnace of claim 1 wherein said barrier layer is physically separated in at least some areas from said refractory material walls.

16. The furnace of claim 15 including a gas feed inlet for introducing between the barrier layer and the refractory material walls.

17. A quartz article produced according to the method of claim 1.

18. An optical fiber including a sheath comprised of the article of claim 17.

19. (new) A method for forming an elongated article, comprising:

A |
feeding a generally SiO_2 material into a furnace melting zone comprising a refractory material wall having a protective lining;

fusing said SiO_2 material in the melting zone under a gas atmosphere comprising at least one carrier gas enhanced with an added oxidizing gas; and

drawing the fused SiO_2 material from the furnace to form the elongated article.
